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Of Sound and Flavour – Revisiting the Notion of Material for the Cultural Sociological Analysis of Art Domains

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journals.sagepub.com/home/cus**Isabelle Darmon** 

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Abstract

This article proposes a possible path for a materialist cultural sociology of art, focusing on the dynamics of art(s) domains and harnessing Adorno's dialectical notion of material anew. I seek to establish links between dynamics of the arts domains and the fostering of specific modes of engagement with them – and, potentially, stances in other domains of life. I argue that a return to Adorno's notion of (musical) material allows for such connections to be made: the 'material' is where the dynamics of the specific arts domains are inscribed; but it is also what is engaged with – by composers and artists as well as by interpreters, performers and publics. A dialectical material lens seems well suited for the critical study of the dynamic of arts domains in the 20th and 21st centuries, given the multiple artistic 'breaks' proclaimed. Focusing on some well-known movements in music and cuisine which sought to 'emancipate', 'democratise', and 'diversify' sounds and flavours, I analyse the processes through which they produced sound and flavour anew. I suggest that sounds and flavours themselves have become the carriers of logics relevant to music and cuisine, and that they have come to imperiously command modes of commitment (from composers and chefs, performers, listeners and diners alike) that evince specific stances. Through this necessarily sketchy survey, I provide indications that broader, cross-cutting cultural dynamics may be at stake. Overall, I seek to make clear what theoretical steps are afforded by the joint attention to materiality and the dynamic of art domains.

Keywords

Adorno, art domains, cuisine, cultural sociology of art, flavour, material, music, sound, Weber

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Social scientific studies of art are difficult – always having to circumspectly steer between the Scylla of over-sociologising and the Charibdis of ‘internal analysis’, whilst nevertheless attempting to engage sociologically with art objects, art and the artistic encounter. There is a furious desire, on the part of cultural sociologists, to attend to ‘the operations and logics of the inner workings of cultural objects’ in order to explore how ‘human experience of art affects human experience of the world’ (Wagner-Pacifi, 2010: 109). Various paths have been explored in these treacherous waters, from new emphases on the material dimension of the relation to art, on the micro-sociological and empirical analyses of its social affordances and power, to the analysis of large corpora of aesthetic data (sensory elements of the works of art), in search of aesthetic patterns of sociological relevance. In this article I suggest that the analysis of the dynamics of art and cultural domains can be a fruitful route to respond to the call made by Wagner-Pacifi, and by others (e.g. Marshall, 2011). The comparison of dynamics of cultural domains¹ is undoubtedly a fundamental sociological task, and the present inquiry, into key directions in the dynamics of music and cuisine in the 20th and 21st centuries, could have attempted to be a contribution to such endeavour. Yet my purpose is different here, as I am seeking to establish links between dynamics of the music and culinary domains and modes of engagement with sounds and flavours – and, potentially, stances in other domains of life. I will suggest that a return to Adorno’s notion of (musical) material allows for these connections to be made: the ‘material’ is where the dynamics of the specific arts domains are inscribed; but it is also what is engaged with – by composers and artists as well as by interpreters, performers and publics. Inspired by recent materialist musicology, I hope to show how recovering the dialectical character of Adorno’s notion of the material could also help foster a more dynamic materialism than the ‘new materialist’ approaches to art and the arts.

‘Putting art back into social sciences of the arts’ has been a consistent endeavour of cultural sociology of the arts over the last 30 years, to remedy what were perceived to be blind spots on the part of the sociological approach to art – and this move, informed by various ‘turns’, very much came to mean claiming the art *object*, its material qualities and agency for social scientific purposes (De La Fuente, 2007, 2010). Approaches subsumed under the banner of the ‘new sociology of art’ have privileged the minute description of art ‘always in the making’ (Hennion, 2016a: 290), and both the artistic encounter and the account of it require that we should make ourselves available, ‘pay attention’, to the art-object’s ‘presence’ (Hennion, 2019: 51). Studies inspired by the strong programme in cultural sociology have also turned to the ‘material’, and are not less prodigal of sensually rich descriptions of ‘surfaces’ (e.g. Alexander, 2008), but this is done in order to bring out their semiotic significance for deeper social processes, rather than with a view to analysing their organisation. The power of art objects lies in their stillness (Wagner-Pacifi, 2010), in the ‘social-psychological compression of sensualities’ they effectuate, as De La Fuente suggests, drawing on Harvey Molotch (De La Fuente, 2007). Indeed, in these approaches, any study of art *domains* and their *dynamics* is forsaken in the name of the agency of the art-objects themselves, whose properties emerge in ever-renewed encounters and cannot be decided before they happen, as Zizek puts it in relation to ‘new materialisms’ (Zizek, 2018: 48).

Conversely, the explosion of computational or digital humanities has led to new studies into the patterning of art and cultural domains, which have not hesitated in advocating a

return to the question of ‘aesthetic logics’ – defined as the relatively autonomous ‘sensory appeal in cultural systems’ (Van der Laan and Kuipers, 2016: 64). Here, access to the structure of the sensory properties of art objects does not come about by tuning oneself to them, but by harnessing the power of machine-processing for ‘seeing precisely that which we don’t see’ (Wagner-Pacifici et al., 2015: 3). Work now subsumed under the banner of ‘formal studies of culture’ (Edelmann and Mohr, 2018) has been looking for ways of unveiling cultural patterns and of approaching the broader organisation of cultural and art material through cultural codings lending themselves to the interpretation of social meanings and to a new ‘computational hermeneutics’ (Mohr et al., 2015). Yet the suspicion may always sneak in that ‘external grammars’ are projected on to art objects, ‘reducing art to an enquiry into signifying and communicative acts’ (Hennion, 2014: 172).²

In both the new sociology of art and computational hermeneutics, materiality thus appears as that which humans can only approach through intense self-tuning or surrender to the machine, and yet as that which reveals ourselves to ourselves, as the truth of social and human life. The ‘surface’ of the art-object points us to the ‘depths’ of social life,³ and ‘inhuman’ machine-processing thwarts social interpretations limited by human rationality to better uncover the cultural material patterning of human life and culture. Through a sort of inverted commodity fetishism, as if the arts hosted potential for salvation from the petrifications of the economy, a hope already entertained by Simmel in *The View of Life* (2010), art-objects appear as very complex things at first, but when their materiality (and ‘sensuousness’) is restored through our acute tuning to them or through the power of the machine, they are expected to reflect back the truth of social relations of which they are themselves part, absolving the social scientist from any undue over-sociologising or over-aestheticising.

Yet, even views sympathetic to their takes on materiality and aesthetic patterns criticise the new sociology of art for lack of a broader sense of the historical dynamics of art domains, and the formal studies of culture for the risk of sociological thwarting of internal grammars. The notion of mediation, elaborated from Adorno in different ways by Antoine Hennion (who recently abandoned it),⁴ Tia DeNora, and Georgina Born, had been meant to tackle such disjuncture. Born and Barry (2018) took the mediation framework further in their recent collection on *Music, Mediation Theories and Actor-Network Theory*, in particular to explore anew the articulation of music mediations with other social, material and infrastructural ‘forces’; and to reinscribe ‘subjectivity’ ‘at the heart of theories of mediation’ (Born and Barry, 2018: 477) as the way to attend to the material specificity of the artistic encounter. The explorations encouraged in this third current are informed, albeit critically, by Actor-Network Theory (ANT) and new materialist approaches, in which any notion of dynamic comes from matter itself, from its becoming and temporalities, thus presenting a radically different connection between mediation and materialism from Adorno’s. Nonetheless the task to jointly attend to the broad dynamics of music as well as to the specificity of the musical encounter, which the editors of the collection stimulatingly put forward, could, in my view, benefit from a return to Adorno’s dialectical and agonistic notion of ‘material’ – and, perhaps from a re-dialecticalisation of the notion of mediation. I will only touch on the latter hypothesis in this article, focusing, rather, on the former, and spurred by recent music scholarship (Kane, 2007, 2014; Saladin, 2012; Wilson, 2018).

Indeed, Adorno's notion of the material, that is, 'the sum of sound properties and sonic relations pre-formed by history' (Dahlhaus, 1974: 10) condenses and conveys the dynamic of the music domain: 'It is the material which provides the stage for progress in art, not individual works' (Adorno, 'Reaktion und Fortschritt', quoted in Paddison, 1993: 88). 'Progress' of course does not refer to any superiority of the latest music production, but rather to a sense of where the dialectical dynamic of music is at, that is to say, a sense of the tensions that come to define it. The idea of tension is both absolutely crucial to Adorno's dialectical materialism and difficult to grasp as it is endlessly replayed on different levels. Samuel Wilson, in a remarkable recent piece on Adorno and new materialisms, convincingly argues that there has been too much literal interpretation of Adorno, conveniently leading to dismissals of his overall approach as overly general, metaphysical – in short, empirically ungrounded; and that it is much more productive to follow the 'spirit' rather than the 'letter' of his thought – to 'deteritorialize' him (Wilson, 2018). In that light, I would argue that Adorno's notion of tension of the musical material demands renewed sociological attention, both in order to avoid views of materiality as 'stuff which is "simply there"', and thus 'inert' (Wilson, 2018: 263), but also where one wishes to oppose views of sound as continuous flux, animated through its own agency (Cox 2011). As Wilson has put it, 'past thinking and practices exert historical pressures upon the present' and these tensions 'cannot simply be ignored or dismissed, at risk of their unacknowledged continuance': they need to be 'worked through' (2018: 268).

A dialectical material lens seems well suited for the critical study of the dynamic of arts domains in the 20th and 21st centuries, given the multiple artistic 'breaks' proclaimed. Indeed, the dynamic of the music domain in the long 20th century can be said to be one of 'breaking free' of sound, as musicologist Makis Solomos has masterfully shown (2013). Artistic breaks were declared by some 20th-century movements across many art domains – e.g. Futurism and the movements drawing the consequences of post-humanism, and some of the directions of 'emancipation' of sounds can be found in other art domains: thus Kandinsky and the Blaue Reiter associated their quest to 'emancipate colour' from the domination of form to Schoenberg's emancipation of dissonance in musical composition (Jay, 2020). However improbable this might read, I will argue here that the case can be made of a parallel 'breaking free' of flavour from cuisine.⁵ Intense musical and culinary research did take place over the last century, propped up by shared interests in undoing what were perceived as formal, abstract, hierarchical, exclusionary musical and culinary straitjackets and, as per Edgard Varèse's formula, allegedly 'liberating sound' (and flavour) from these (Varèse and Wen-Chung, 1966). Seeking to 'emancipate' or 'democratise' and diversify sounds and flavours implied a conflictual process at the same time as it signalled a belief in the possibility of clean rupture. These breaks thus lend themselves well to a dialectical materialist analysis, that is to say to an analysis of the tensions at play, and how these were stretched to the utmost, suppressed, or diluted in the process of producing sounds and flavours anew. Furthermore, whereas these artistic breaks often associated themselves (or were associated with) philosophical ones (Husserl's phenomenology and Derrida's deconstruction, for instance), I will shift the attention to their *ethical* implications, and argue that they themselves fostered dispositions and stances, modes of engagement with and commitment to 'sound' and 'flavour'

in various guises. Overall I will suggest that sounds and flavours themselves have become the carriers of music- and cuisine-relevant logics, and that they have come to imperiously command modes of commitment from composers and chefs, performers, listeners and diners alike that evince stances with, possibly, more general bearing, across but also beyond art domains.

In what follows, I refer to well-known music research and ‘creativity’ programmes, carriers of each of these directions of ‘breaking free’, and propose an analysis of the processes through which they produced sound anew and demanded specific forms of engagement with sound, pointing out how the elision of tensions (in the material, for composition) went together with the cultivation of specific stances. I explore parallel dynamics in 20th-century and 21st-century cuisine and how these in turn have shaped contemporary flavours. This cannot be an exhaustive survey: the comparison is here more taken as providing cues, indications that broader, cross-cutting cultural dynamics may be at stake. Yet such a sketch will hopefully make clear what theoretical steps are afforded by the joint attention to materiality and the dynamic of art domains.

Acousmatic Sounds and Intense Dematerialised Flavours

Early 20th century musical ruptures brought about new conceptions of sound and the sound material - Schoenberg’s *Klangfarbenmelodien* (melodies of tone-colours, i.e. of timbres), Futurism and Russolo’s *Art of Noises*, and Edgard Varèse’s widely commented visions for music as ‘organised sound’. Yet it is the rupture declared and enacted by Pierre Schaeffer and the Groupe de Recherches Musicales (GRM) after the Second World War that is particularly significant for my account. Schaeffer materialised the break from the parametrical sound of the classical order (defined by its pitch, duration, timbre etc.) by cutting sounds from their ‘source’. Through tape editing and sound manipulation, he created ‘acousmatic’ sounds, both ‘real’ and ‘concrete’ (e.g. train noises in *Étude aux chemins de fer*, piano noises in *Étude violette - piano*), but to be listened to for their morphological qualities rather than for their ‘anecdotal’ suggestiveness (Kane 2014: 28). Sound became the starting and end point, an event and a process. Brian Kane has highlighted the deliberately a-historical, ontological conception of sound that is thereby developed, through an ‘essentialist’ conception of technology – rather than technology as bearer of ‘*historically unique affordances*’ – and thus the refusal, or rather the denial and suppression of any musical material in the Adornian sense (Kane, 2007: 22).

Such suppression of the tensions also happens at the compositional level: Schaeffer’s compositions with sounds were aimed to bring out their singular morphology, to ‘assemble [sounds] according to [their] *family resemblances and concordance of characters*’ (quoted in Kane, 2014: 120, my emphases), where character means global singularity, rather than specific, isolated sound parameters. Affinity between morphological qualities of sound both relates sounds through families of similar sounds and highlights their individuality. This fosters a new form of acute, focused listening, aimed at ‘un-conditioning’ listening, opening it to each sound. Schaeffer’s demand upon the listener for a mode of listening that did away with prior conditioning as to the meanings of sounds, is meant to foster ‘an intimacy with matter’ (quoted in Solomos, 2013: 241); or, as Pierre Henry,

another GRM composer, said, the listener should dive into the ‘interiority of sound’ (Solomos, 2013). Composition is thus at the service of the ‘disclosure’ (Kane, 2014) of the essence of sounds.

Brian Kane has demonstrated the importance of Husserl’s phenomenology for Schaeffer’s ontological conception of sound, whereby sound is posited as always prior to the experience of it, and:

experience becomes secondary to its role of providing evidence for disclosing essences. Through a sleight of hand, phenomenology covertly places its ontology prior to experience, and then subsequently discloses the ontological horizon as if it were always already present—as if its ontology made experience possible in the first place. (Kane, 2014: 36)

This ‘sleight of hand’ very well captures the kind of elision processes at play. As shown by Kane, these amount to the negation of the (Adornian) historical sedimentation of sound and suggests that both composition and listening become operations of revelation.

Alongside such philosophical rooting however, these elisions spur specific modes of engagement with, and indeed, commitment to, sound: ethical stances, demanded of both the composer and the listener. Ascetic exertion and mastery is required from the composer: whereas Schaeffer often worked with social sounds and noises, whose origin is even more immediately perceptible than the musical instrumental origin of sounds used in non-electronic music, compositions, as ‘montages’ of recorded sounds, must evict all traces of social reality and transform everyday concreteness into concreteness of sound for itself. Ascetic exertion is also expected from the listener, who should tune their own listening through a new sonic solfège, that is to say a new music theory for the organisation of sounds, classed according to their morphological qualities, and refrain from listening indexically (to sounds as signs of social activity or physical tools), as would habitually be the case. Schaeffer himself referred to the asceticism of his *Études*, but he meant this in the common sense of sobriety and simplicity – opposing them to the ‘torture’ inflicted to the sound objects by ‘preconceived considerations’ (e.g. in dodecaphonic music) (Kane, 2014: 120). I understand asceticism here in the much stronger sense of exertion and work upon oneself and the world (to make them more worthy of God). Indeed, the mutual reluctance felt by Schaeffer and John Cage towards each other’s music (Saladin, 2012), despite their common aim of ‘letting sounds be themselves’ (as per Cage’s well known plea), may have stemmed from this opposition between the ascetic stance demanded by Schaeffer, and Cage’s well-known self-professed contemplative and mystical attitude of ‘letting go’.

In what sense can it be ventured that flavour ‘broke free’ from cuisine in the 20th century, echoing the flight of sound? Like sound for music, flavour was always very much what cuisines were about. Indeed traditional cuisines are characterised by typical flavour combinations (and their endless, elaborate, variations – see Rozin and Rozin, 1981) in the same way as the timbre of a specific instrument, such as the bagpipe, or koto, are associated with, and carry, Gaelic or Japanese music. As was the case for the ‘breaking free’ of sound, technological, market and societal developments supported the breaking free of flavour, which nevertheless was channelled through wide artistic as well as more specifically culinary movements. Futurism, to start with, embarked on a

ferocious (and fascistoid) crusade against pasta and ‘all traditional combinations’ (Birnbaum, 2015: 86). The development of synthetic flavour, of technologies and procedures of ‘flavour design’, the recent glamourisation of the profession of flavourist and the increasing social science interest in flavour composition in the industry and by chefs, have all contributed to forwarding flavour as starting and end point, as process and as event – to echo my earlier characterisation of this transformation for sound.

The advent of gas chromatography, a technology that allowed for the identification of the various volatile aroma compounds in a given ingredient, facilitated the development of what could be called the physical-chemical breaking free of flavour, and eventually the emergence of a ‘molecular cuisine’. This process bears resemblance to the first attempts at electronic synthesis of sound from the combination of single sine-waves, pure pitches without harmonics, first carried out by Karlheinz Stockhausen, and, like *Musique Concrète*, purports to cut taste from its source ingredients. Whatever the techniques and processes used for this, and whatever the closeness or distance from science manifested in the names adopted (modernist cuisine, molecular cuisine, molecular gastronomy, experimental cuisine etc.), the unity of this movement resides in the separation of flavour (and more specifically ‘flavour molecules’ or ‘odorant compounds’) from its source ingredients, and the associated processes of flavour de-construction and reconstruction.

Thus, for chef Ferran Adrià, the hero and herald of ‘modernist cuisine’ at the turn of this century, the emancipation of cuisine implied ‘deconstructing’ and questioning ‘traditional meanings’ of dishes (Parasecoli, 2001).⁶ This led him to works of ‘disembodiment’ and ‘dematerialization’, in which what remained of food was, in Isabelle de Solier’s felicitous expression, ‘intense flavoured nothings’: mousses, foams, airs (de Solier, 2010: 163–164). In such cuisine, food ingredients almost vanish, sublimated into their flavour ‘spirit’:

A deconstructed dish protects the ‘spirit’ of each product it employs, and preserves (even enhances) the intensity of its flavor. Still, it presents a totally transformed combination of textures. The results are such that the patrons, when consuming this dish, can relate the final flavor to the classic recipe. (quoted in Parasecoli, 2001: 67)

Adrià sought to provoke a different kind of savouring, which, beyond the ironies and plays of deconstruction, beyond the highly technologised processes, directed eaters both to the intensity of flavours and to their ‘purity’ (Adrià’s word, quoted in Parasecoli, 2001: 68; see also Abend, 2011: 184). Yet Adrià claims that there is a something, an excess in every foodstuff, that escapes him, their ‘gen’, or spirit – the paradox is here complete as the apex of artificiality only seems to have been conjured up for the sake of directing the eater to the mysterious essence of each food, the ‘somewhat objective [but always elusive] reality’ of taste (Parasecoli, 2001: 71). The chasm between suggesting foods’ ‘gen’ and the technological sophistication and slave work⁷ this requires is left gaping – no ‘working through’ of the tensions is to be expected there, rather ultimately there is only one possible reconciliation between ‘gen’ and work, Adrià’s own ‘*genius*’. Adrià’s cuisine echoes Schaeffer’s *Études* in some striking respects – as the truth of the sounds or flavours is aimed at through the technological device and composition, and there is a shared intent to foster a form of direct connection to sound or flavour, and to engage the

eater and listener in a mode of eating and listening experience that is allegedly purified from its habitual (whether traditional or intellectualised) associations. Indeed Schaeffer's 'reduced listening' seems echoed by what could be called 'reduced tasting' in Adrià's cuisine, in the dining experience itself. And in both cases a short-circuit is taken through technology to a 'quasi-metaphysical' essence of sound and flavour (Parasecoli, 2001: 70), and listeners/savourers are expected to be touched by such grace. A dinner at El Bulli, as per a foodie couple's blog,⁸ involved 'extreme lighting' (with 'a spotlight aimed over each table'), fingers were used more often than cutlery, eating directions were provided by busy service staff, excluding any possibility of mundane digressions in the interaction with them, and above all courses – some a mouthful, some full dishes – succeeded each other at quick pace (dinner consisted of 40 courses, the first 20 of which were absorbed in 1 hour and 15 minutes!). All of this made for focused and close 'involvement' with the food, and with the food only, with no energy wasted on anything else. The couple, torn between giggling from pleasure and panting from the hard work, between bliss and ascetic striving, were left doubting what to make of this experience. The conclusion of their long documented piece therefore turns to the only certainty: an acknowledgement of Adrià's 'genius', per se, and detached from its specific culinary content ('The bottom line is that if you ever get a chance to spend up close time with a genius take it, for that's a moment you'll remember for the rest of your life'), thus coming round to Adrià's own conclusion. After El Bulli, he turned to generic 'creativity' in his new Foundation, supported by La Caixa and Telefonica, coaching 'innovation processes' beyond gastronomy (Conde, 2017), and thus drawing, in a way, the logical conclusions of his dematerialisation of flavour.

Sound and Flavour Combinatorics

The breaking free of sounds and flavours has also meant breaking with rules for the sound and flavour combinations in musical and culinary systems, viewed as hierarchical and thus anti-democratic, or as undue restrictions on the immensity and diversity of possible combinations of all with all (sounds/flavours). Composer and music philosopher François Nicolas attributes the coining of the democratic strand of this move to musique sérielle, which abolished the hierarchies of tonal music; and extended the equalisation of notes thus afforded to timbre and rhythm, multiplying potential combinations between the various parameters of sound (Nicolas, 2010: 188).

Combinatory possibilities have been pursued in research on sounds both at the micro and macro levels. The principle is always some form of equalisation, as a basis for the potential combination of all with all, only curbed by local, specific rules. Equalisation can come very close to extreme calculative rationalisation, when 'acoustic events' are divided into temporal micro-slices (or 'grains') which will then be recombined in changed ways through 'granular synthesis' (Roads, 2004: 86). It can also be achieved through stochastic processes, whereby sequences of music, or even a whole musical piece, are produced through an algorithm which synthesises sounds undergoing aleatory variations (as in Xenakis' GENDYN programme, a reference for contemporary computer music, including glitch, noise and 'extreme' computer music – see Haworth, 2015). Echoing Nicolas' argument of an increased dependency of contemporary music on

mathematics, Paul Théberge has suggested that music has been transformed ‘from an art of instrumental sound, performance and compositional technique to one of mathematics, digital technologies and algorithmic operations’ (Théberge, 2015: 330).

The breaking free of sounds here stumbles upon the challenge of offering musical consistency whilst breaking with the constraints of musical hierarchies. Whilst ‘new music’ had, according to Adorno, stretched this tension to the utmost, since each composition had to construct its own rules for the combination of notes which had been emancipated from their scales, the so-to-speak democratist breaking free of sound went in the opposite direction and sought to unbend the tension through some form of coding or stamping of sounds in expanded sound universes.⁹ In biologically-inspired programmes for genetic algorithmic composition, for example, sound is apprehended through its ‘behaviour’, and consistency is assessed through ‘fitness’ scores for these behaviours (Eldridge and Bown, 2018). Relying on ‘fitness’ criteria implies drawing on known repertoires of rules for selection. In the Vox Populi programme studied by DeLanda (2008), for example, sounds are defined through the classical parameters of pitch, timbre, loudness and duration, and sound ‘behaviour’ is assessed against rather conformist criteria of harmonic and melodic fitness. Precisely the kind of harmonic hierarchies that new music had brought down are here brought back through the back door of physical consonance (overlap of harmonic profile of sounds), equated with the alleged objectivity of ‘what is pleasing to the ear’ (Moroni et al., 2002: 212), despite the eminently cultural dependency of such pleasure, as noted by DeLanda. Indeed, the possibilities bred by combinatorics there seem to stem more from the ever-expanding population of sounds generated by the programme, than from any emancipation of composition principles.

The other possibility for ensuring some consistency of the pieces produced is to act upon the universe of sounds concerned by giving it a particular colour or style. Thus Brian Eno’s and Peter Chilvers’ generative programme *Scape*, which makes it possible for listeners to never listen twice to the same piece through a touchscreen interface with visual shapes, relies on the particular identity and quality of Eno’s sounds (Steadman, 2012). Interestingly and conversely, the indeterminacy of potential combinations shapes the kind of sounds that Eno works with, as Chilvers and Eno explain in an interview with *Wired*, so that any combination can ‘work well’:

- Chilvers: A lot of the sounds came out of a mixture of existing pieces by Brian, so there was already an existing combination that would sit well together. I think it’s partly down to the nature of the kind of music that Brian has been creating that they actually sit well with most sounds in this universe.
- Eno: That’s right, it’s a kind of universe of sounds that work well together, and they can have quite ambiguous tonal relations with each other . . . this music was made from the beginning in that way. It was made on the idea that the elements within it were not in a fixed relationship to each other, they didn’t have to be in just one relationship. The discovery that we made was that you could take three or four of those elements from one piece and three or four from another piece and – ah! – they can work together. It’s been treated like a composition process from the beginning really. (Steadman, 2012)

Thus, consistency comes from the fact that it is Eno's sound universe, Eno's brand of sound, that is being endlessly explored, composed and recomposed. Immersion in that sound prevails over the play with its different possible versions and makes that play possible. In both of these polarised cases (Vox Populi, Scape), the alleged infinity of possibilities, through an ever-expanding sound universe or through ever-renewed possibilities of combinations, is curbed for the sake of instilling consistency, but this is achieved through sound-breeding formulas or the use of an exclusive 'set of [sound] seeds', in Chilvers' astute words, which prolong the genetic metaphor. The tensions of the material, between the combinatory drive and the demands of composition, are not so much suppressed, as in *Musique Concrète* and the ontologisation of sound, rather they are loosened through what could be called a process of geneticisation of sound.

These processes of sound geneticisation fare very well in the new platform economy. For, as Paul Rekret has shown, even though sonic content might appear irrelevant where platforms seek to keep the listener engaged, such persistence of experience is nevertheless well served by 'sound that takes its audience neither too high nor too low', for the 'continual production of audience data with minimal friction' (2019: 59, 69). In pop music, this perfectly matches 'chill' music, and the definition of ambient by Brian Eno (Rekret, 2019). All tensions are diluted in such sound material, as it itself becomes a 'sonic flux' (Cox, 2011: 155) and the composer becomes, as per John Cage's vision, a 'curator' of 'sonic matter' (Cox, 2011).

Not unlike Schaeffer, Eno seeks to 'deepen listening', but this is through the very different means of ambient music, which, according to François Bonnet, functions as 'an "ecological" device, an environmental expressive apparatus' (explicitly claimed in the name 'Scape'), which 'reaffirms the multitude of sound in its oceanic continuity' (Bonnet, 2016: 278). This fleeting character of ambient and other deep listening music has also been described by David Toop, echoing Eno, as 'aspiring to the condition of perfume' (Toop, 2001: 21). Such music, then, impregnates and intoxicates both the music maker and the listener, leading them into 'a shifting zone' (2018: 22), and thus into a typical mystical stance of 'in-between'. Scape itself may be offering its users the kind of 'space for meditative experimentalism' that Toop had in mind for electronic music (Rekret, 2019: 60).

Combinatorics also underpins cuisine, of course. One of the first heroes of 'modern' cuisine, Antonin Carême, divided recipes into signifying units whose potential combinations and recombinations were ruled by the grammar he established (Ferguson, 2004). Molecular gastronomy, and more generally contemporary cuisine, is itself heavily inspired by a combinatory logic. Cuisine is also one of the fields in which 'computational creativity systems' are being developed and tested, with key input from computer scientists. IBM's Chef Watson project, a programme for collaborative machine-human generation of recipes, works through a dizzying corpus of recipes, ingredients, flavour compounds, cooking methods, tools and so on, applying specific principles to it for generating and selecting new recipe ideas (Varshney et al., 2019).¹⁰ The IBM programme equates culinary composition and computational combinations, through the invocation of 'creativity' as frame, where creativity is defined as a non-domain specific, transferable procedure consisting of 'a generative step to produce many ideas and a selective step to determine the ones that are the best' (Varshney et al., 2019: 1). The generation of recipes

can be done, as in computational programmes for musical composition, through genetic algorithms, stochastic sampling and associative generation (Varshney et al., 2019: 5). And again, consistency comes from the selection principles, and from the fitness of the recipes produced with criteria stemming from consumer research: ‘novelty’ and ‘pleasantness’ (also called ‘deliciousness’).

Whilst novelty, in the Chef Watson software, is measured against the corpus of reliable artefacts known by the programme user, ‘pleasantness’ is a calculated property of the generated artefacts and, in particular, of the flavours of the dish produced. The programme thus breeds the fittest flavours, as Vox Populi breeds the fittest sounds. This is based on neuroscientific and chemical research allegedly showing that a ‘hedonic quantity’ can be associated with individual flavour compounds, ‘regardless of culture or other subjectivity’; and that the pleasantness of a combination of flavour compounds ‘is approximately a linear combination of the pleasantness values of the individual compounds’! (Varshney et al., 2019: 9). Hence pleasure is predicted through a ‘data-driven model’ which relies on hedonic valences of individual flavours.¹¹ Flavour has broken free from its traditional associations in existing recipes, only to be tied back to its natural physical properties, and to a scale of hedonic capacity. All tensions of the culinary material, all excess of the culinary over the combinatory logic, disappear, since cuisine is equated with combining the fittest flavours for maximising ‘hedonic value’.

As it turns out, combinatorics is also what has driven the creations of David Chang, the ‘post-gourmet’ chef, who, first with the Momofuku noodle bar (opened in 2004), brought a resolute and cheerful ‘Bastille day moment’ to the New York food scene and then to American dining more generally (Platt, 2014). Chang’s characteristically self-deriding ‘Unified Theory of Deliciousness’ (Chang, 2016) may well be a post-fact construction which barely explains his food and its success – yet, it does offer a way into Chang’s approach to the material, and it now forms the basis of the culinary lab which informs the cuisine in the restaurants of his quite extended business group. The core of this ‘theory’, inspired by Douglas Hofstadter’s isomorphisms and strange loops,¹² is to unravel patterns of flavour combinations across culinary cultures, thus considerably widening the base of source ingredients for the individual flavour component of these patterns. Chang’s ‘cross-cultural blockbuster’ pattern equivalences reframe migrants’ constrained world of substitute ingredients, turning it into a powerful vehicle for both ‘novelty’ and ‘pleasantness’. This is because, Chang tells us, whilst pleasure is fuelled by recognition, and thus by habit memory, this is redoubled by the distance created by the displacement of the source for it, the excitement at rediscovering this cherished taste or textures through the combination of unknown ingredients – there is pleasure and meta-pleasure at the same time (Chang, 2016). His combinatory and culinary paradoxes are meant to ‘unleash’ flavours. Contrary to Adria’s quest in the spiritualisation of chicken curry, Chang thus does not seek to sublimate perception towards a purity of flavour; his commitment is rather to the flavour multiple – ‘tons of’ flavour, with also maximum ‘deliciousness’ and hedonic value.¹³ However the equivalences between the taste functions and textures of his recurring patterns do not necessarily work: thus his Asian ‘ceci e pepe’ at Nishi, ‘Chang’s proto-Italian restaurant in Chelsea’ was received with sensory delight, yet with scepticism at the suggested parallel (Gold, 2018). In the end, recognisability may well be due more to a ‘Changian way’

(Judkis, 2019), not unlike the fragrance of Eno's music. There is definitely a 'Momofuku flavour', with bases in fermented pastes, and heightened, amplified, deepened and maximised through seasoned salts. Developed as the taste of down-town New York, giving 'a sense, as you slurp your noodles and devour your pork buns, that you're involved in the local culinary equivalent of a midnight rave', as New York magazine food critic Adam Platt (2010) has suggestively put it, the Momofuku flavour then moved from that 'terroir' of his (Platt) to becoming a breeding device, both amplifying and yet stamping the Changian flavour universe: a geneticisation process that here, even more clearly than for Eno, comes close to branding.

Discussion and Conclusion

In this article, I have explored a possible way for holding together the analysis of broad dynamics of the arts domains and attention to the specificity of the artistic dispositions fostered through these dynamics. Looking at the 'breaking free' of sound in the 20th century, I focused on two key movements which can be seen as polar opposites, although they may jointly inspire musicians: on the one hand, a 'breaking free' of sound from its abstract parameters, a zooming into sound in itself, its acousmatic morphology and qualities; on the other hand, a 'breaking free' of sound from the hierarchies of music systems, a 'democratisation' of sound and equalisation as indifferent matter for infinite combinatorics.

I charted parallel moves in the culinary arts. Modernist cuisine sought to 'free' flavours from their traditional meanings, whilst computational gastronomy and the combinatorics of fusion cuisine have promoted what could also be called the democratisation of flavour – as flavours are assessed individually and associated with individual hedonic valences in creativity programmes, or become permutable through cross-cultural equivalences. Although these breaks participated in driving the evolution of the music and culinary systems towards multiple, so to speak localised, orders of sounds and flavours, with each responding to one dominant, polarising logic, they have arguably had a broader imprint on musical and culinary practices from composition to listening and tasting, as they always represent a possible direction and exert pressure on the musical and culinary material at hand.

Analysing the dynamics of arts domains from the perspective of their vanishing lines may be a fruitful way of re-engaging dialectically with Adorno's notion of material. Even though, for Adorno, the dialectical wrestling with the material takes place through and in the artwork, a conception of the musical material as pervaded by tensions also affords a relatively more open notion of the work, whereby not only composition but also interpretation, performance, and listening are located in a changing 'force-field' (*Kraftfeld*) (Paddison, 1993). It is thus possible to conceive of the historical dynamics of art domains as force-fields organised by the tensions pervading their material (enacted and re-enacted through works, performances and acts of listening and savouring). Even though Adorno refers to the tensions held on to (but also 'congealed') in the art work in ways that can appear highly abstract (for example the tension between construction and expression), it makes intuitive sense to understand why works of art endure and take on new meanings in different times and different interpretations if they are understood as a particular way of 'working through' forces at war with each other in the material at hand, which can thus

be endlessly replayed, reworked in ways that bear on the present. The centrifugal, polarising logics affecting the musical and culinary material in the movements analysed here led to the disintegration of the material, in Adorno's view. However he also recognised 'the possibility of musically mastering the experience of a technologized world . . . to make room for the expression of just those kinds of tension that the aged New Music forfeits', for example in Edgard Varèse's work (Adorno, 2002: 194). This suggests how the dialectical notion of material can still be a relevant theoretical standpoint to assess the engagement with sounds (or flavours) fostered in artistic and arts movements embracing centrifugal logics. I only explored two of these here – one drawing on the physics of sounds/flavours, the other one on mathematics, arithmetics and combinatorics. I am currently researching a third one, the logic of ecology, which underpins key movements both for sound (Murray Schafer's Soundscape, its prolongations and the reactions to it) and flavour (e.g. initiatives such as the Ark of Taste set up by the Slow Food foundation), which will extend my argument. Comparison should also be widened to other art domains. Such an approach to art domains thus seeks to be materialist in a dialectical way, and to offer multiple points of entry for analysis, through the logics themselves and/or through their carriers.

Building on analyses by Brian Kane, Matthieu Saladin, Fabio Parasecoli, Manuel DeLanda and Paul Reket, I argued that the 'breaking free' of sounds and flavours went along with processes of suppression, or loosening of tensions besetting composers' and chefs' musical or culinary material. The quest for disclosure of sounds and flavours 'in themselves' is at odds with and suppresses the mobilisation of technological work *de facto* required, in an ontologising move. On the other hand, ever-expanding universes of equal-sound and flavour individuals are a challenge for their organisation, unless this tension is loosened through what I have proposed to call their geneticisation – their breeding according to known parameters and patterns, or from a specific set of sound- and flavour-genes (though the 'condition of perfume' of ambient music, or the Momofuku fragrance could also be seen as 'tags', a form of external identity stamping rather than in genetic form). Compositions are thus more adequately conceived of as drawing on series or collections (the akin sounds of Schaeffer's *Études*); as sequences of permutable elements (each table at El Bulli was served a combination of 40 courses amongst the 50 available for the season); as universes of equally stamped, and thus compatible, and combinable, sounds and flavours; and as populations: all of which express a very different type of order from musical or culinary domains conceived as 'force-fields'.

At the heart of series, collections, sequences, universes and populations is a principle of equivalence and exchangeability. Peter Szendy, drawing on Deleuze's formula, in *Time-Image*, that 'money is the reverse of all the images that the cinema shows and edits on the front' (quoted in Szendy, 2019: 60), has suggested that 'money . . . inhabits film even before it is distributed: it is lodged in its innermost texture' (2019: 13). In other words, cinema is not only captured by a market logic, the market is already pervasive in its medium, and, as images reach beyond film and saturate the world, the world 'turns into film' (Deleuze's formula). Szendy's exploration of the 'becoming cinema' of the world (2019: 44) suggests that there may also have been an 'iconomicisation' of other arts. In any case, reflecting further on the specific pathways and principles of equivalence taken for sound and flavour seems a crucial task for a materialist cultural sociology of art and the

arts. I have only sketched out some preliminary ideas of such paths, including affinity, permutability, equal valence, shared genetic patrimony and isomorphism. If, as Marx proposed, music constructs the ear, and if, according to Deleuze and Szendy's elaboration of this Marxian insight, cinema constructs sight and visibility (Szendy, 2019: 6), it matters to unravel the dynamics of art domains and interrogate the construction of the contemporary modes of listening or savouring, the construction of the very senses involved.¹⁴

The other side of the principle of equivalence highlighted here is that sounds and flavours have taken over from musical works and culinary dishes and have themselves become the *carriers* of logics relevant to the music and culinary domains. As such, they demanded, as we have seen, commitment to their cause. The acousmatic sounds of *Musique Concrète* demanded ascetic commitment from composers and listeners alike, subordinating composition to bringing out their morphologies, and expecting exertion and training on the part of listeners – towards 'reduced listening'. The dematerialised, 'pure' flavours of modernist cuisine commanded strenuous repetitive labour on the part of their makers, all geared to shining their 'gen', and a form of (perhaps paradoxically) ascetic 'reduced tasting' from diners. At the polar opposite to such ascetic orientation, the sounds and flavours of generative music and culinary creativity programmes and other breaks inspired by a combinatory logic, demanded another form of commitment and care, a belonging to an identifiable sonic and fragrant universe, one in which the creators-cum-listeners/savourers may immerse themselves, and/or one which they may become addicted to.¹⁵

The emancipation of sounds and flavours, their 'de-territorialization' (Bonnet, 2016) may thus have paradoxically led them, or their outposts, to themselves become agents of re-territorialisation, under single jurisdictions, to continue with Deleuzian language. They become the aesthetic and moral carriers of authenticity, purity, fitness, fluidity, deliciousness, chill, cosmopolitanism or diversity, which listeners and eaters are summoned to take on (and may eagerly seek to do so), associate themselves with, identify themselves with, or surrender to. Some of these commitments take strenuous effort, others are more localised, momentary, fleeting, they become habits or addictions. In Benjamin's words, some are 'thicker', and some 'thinner' (Benjamin, 1991, quoted in Szendy, 2019: 45), but all ultimately uphold the radical democratism and so to speak freedom of movement of sound and flavour matter.

In his essay 'On the social situation of music', Adorno had shown the purpose of the dialectical analysis of the musical material to be the understanding of the possibilities of music as cognition and, via such cognition, the potential for social praxis of emancipation, 'reaching out beyond current consciousness' (2002). For Adorno, such praxis was necessarily predicated on the concrete tensions traversing each art work, and thus on the possibility for the subject to apprehend art (and especially music) as a dynamic process, never fully at peace with the world, with the given. The 'authentic' musical work had 'maintain[ed] this tension [of the material] within its structure, and h[eld] the oppositions within itself unreconciled' (Paddison, 1993: 191); it claimed that same stance (holding to the tension) from all those involved with it. But I have suggested that sound- and flavour-carriers of the breaks studied here turned their back, so to speak, on the tensions of the material: in summoning us to their single-purpose logics, they were and are all necessarily about some quest for reconciliation, with ourselves, with the world, or with some

transcendental realm, as we tune ourselves to them, lose ourselves in them or let ourselves be enveloped by them.¹⁶ Overall it may be surmised that such stances may have come to colour listening and tasting more generally, outwith the specific movements studied, and that this is not without wider social and political significance. Exploring the implications of such dispositions for social praxis is not primarily a question of experience, in my view,¹⁷ but rather demands the analysis and comparison of dynamics of art(s) – and more generally cultural – domains, and apprehending the modes of engagement they foster, as well as significant affinities between these. I have sought to show how the re-dialectisation of the ‘material’ may be a fruitful way to do so.

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Notes

1. Putting forward the notion of ‘domain’ allows me to sidestep the Beckerian and Bourdieusian notions of world or field, and thus to open some space for examining the relation between the dynamics of the art material and social (and, to a lesser extent, political-economic) dynamics. Max Weber used the notion of domain of culture (*Gebiet der Kultur*), sparsely, but in a crucial reflection of the ‘development momentum’ of domains of art, and anticipating his study of music. He thus linked the notion of domain (which is admittedly vague) to a dynamic historical approach which he aimed to articulate to a more sociological approach (as he indeed started to do in his unfinished study of music) (Darmon, 2015). Etymologically, domain, in French and English, and *Gebiet* in German both suggest a bounded territory, a jurisdiction, and, by extension, a bounded area of knowledge and/or action. In Weber’s notion however, the boundaries are an artefact of the dynamics of the domain and its relations to other domains.
2. Indeed the quest for ‘logics’ of meaning, in computational hermeneutics is not equal to exploring logics of organisation of the arts domains, though the sociological ambition is to unveil the logics ‘structuring the assemblage of aesthetic elements into coherent “styles” or “tastes”’ (Van der Laan and Kuipers, 2016: 66). In non-textual corpora of data, in particular, the choice of units of analysis and coding of ‘aesthetic elements’ matters. There are thus ample opportunities for sociological questions to frame the search for ‘partly autonomous’ aesthetic logics, as illustrated by the choice of the ‘person in an image’ as unit of analysis in the Van der Laan and Kuipers study.
3. The Simmelian overtones of Alexander’s approach to surface and depth are resounding. For example, see the study on Rembrandt, following the philosopher’s ‘plumb line [lowered] from the immediate singular, the simply given into the layer of the ultimate intellectual meanings’ (Simmel, 2005: 3 [translation altered]) as well as *The Philosophy of Money* following the ‘directing line [drawn] from the surface of economic processes leading into the last values and significance of all that is human’ (Simmel, 2004: 53 [translation altered]).
4. ‘The ambiguous relationship between sociology and its object is a topic that I have constantly revisited, with a parallel hope of drawing lessons from music that I might apply to sociology. Such was the case with the idea of mediation in *The Passion for Music* . . . I have since abandoned the term, without regret’ (Hennion, 2019: 42).
5. I take cuisine as an art, or arts domain, not wishing to enter here the discussion of the extent to which it is an art, but rather following Mary Douglas’ use of the term as a way to ask some research questions relevant to an art form, involving medium patterning (Douglas, 2011[1982]: 107). However the dissociation between the nutritious and the aesthetic carried

out to this effect is only necessary for Douglas' analysis because she deals with notions of medium and form, with patterns mobilised in rituals marking boundaries and exclusions, rather than with a notion of material in tension between different logics.

6. This quest has been compared to that of FT Marinetti and his 'Manifesto of Futurist Cooking' (Birnbaum, 2009).
7. Food journalist Lisa Abend documented the 2009 season at El Bulli where she accompanied the 32 stagiaires working alongside the 13 permanent staff in the restaurant's kitchen and for service. Unpaid, working 14 hours a day for the whole season, they were employed on repetitive tasks as if on an assembly line – such as pushing 250 'drops of lentil batter through their syringes into ice water each day' (Abend, 2011: 112). This, however, is what it takes to, perhaps, one day make it. One of the stagiaires provides the key: 'A stage at El Bulli is like a baptism. Without it, you're not really a Christian' (Abend, 2011: 24).
8. See <http://www.thecriticalcouple.com/el-bulli> (accessed 21 October 2020). This is a wonderful four-part narrative (before, during – in two instalments, and after), which gives a vivid sense of the magic – and its construction.
9. Stamping vs construction is reminiscent of Max Weber's contrast between external and internal rationalisation.
10. The Volatile Compound Database, run by a Dutch team, compiles data on the compounds in food products (it is currently documenting more than 8900 compounds for 541 products), and is subscribed by large food companies, universities and government programmes. According to *Wired*, celebrity chefs are the latest subscribers (Airhart, 2018).
11. In psychology, 'events, objects, and situations may possess positive or negative valence; that is, they may possess intrinsic attractiveness or aversiveness' (Frijda, 1986: 207).
12. Douglas Hofstadter's *Gödel, Escher, Bach* (1979) marked a generation of Americans, amongst whom was one of Chang's teachers.
13. Platinum Transported (2017) Taste with David Chang, 24 July 2017, American Express Youtube channel, retrieved from <https://www.youtube.com/watch?v=ZPzmllo0a2c> (accessed 21 October 2020).
14. Strikingly, Szendy claims, with Walter Benjamin, that the tactile has irrupted in the sense of sight, whereby we are in contact with images rather than contemplating them, leading to an innervation of the world through images. For Benjamin, and Szendy, this has been conducive to an 'habituated', 'distracted' reception of images. The sense of touch is also mediating listening and savouring in the movements studied here. Apprehending the morphology of sounds, catching flavours through their ephemeral foams, or letting oneself be enveloped in the fragrant halo of Eno's music or Chang's cuisine, all these engagements with sound and flavour do suggest that such haptic mediation is at play. More analysis is required with regard to the haptic character of sounds and flavours, as it does seem to lend itself to very different modes of engagement. As I hinted at the beginning of this article, 'surfaces' and 'touch' are also claimed as vehicles for cultural sociological analysis, though following very different paradigms (Alexander, 2008; Hennion, 2016b).
15. The mysticism of much contemporary music had been noted by Makis Solomos (2013), especially in his analysis of the narrative of the quest for sonic immersion.
16. Tuning oneself to, losing oneself in, letting oneself be enveloped by sounds (or flavours) are part of the wonders of musical (or culinary) experience, of course. I am here not placing the discussion on the level of experience but on that of our orientation, disposition, stance towards sounds, flavours, and perhaps more generally toward the world.
17. This is why supplementing the notion of mediation to enlist it for empirically grounded analyses of music loving, as has been done through the notions of affordance, or those of attachment and affiliation (Benzecry, 2011; DeNora, 2000, 2003; Hennion, 2007) responds to very

different research interests and has amounted to de-dialectalising mediation, which many will not feel as a problem. However, it is interesting to note that such has not been the fate of Adorno's notion in musicology and music philosophy, where it is always to be rediscovered anew, and worked with.

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